

Amendments to the Drawings

Proposed drawing amendments are attached as an Appendix on separate sheets.

Applicants propose amending Figs. 1 and to clarify the references that are objected to. In Fig. 1, electrode 130 refers to the electrode disposed in the upper portion of capacitive pressure transducer 100. Applicants have attempted to clarify the reference by moving the reference numeral. Similarly, parallel plate capacitor 138 refers to the capacitor formed by the combination of electrode 120 and electrode 130. Applicant has moved the reference and arrow and added a bracket for clarification. The same changes have been proposed for Fig. 3. Applicants respectfully request that the Office approve the drawing amendments in the next Office Action.

Remarks

Claims 1-20 are pending in the application. Claims 1-3, 7, 9-13, 16 and 17 were rejected in the Office Action. Claims 4-6, 8, 12-15 and 18-20 were objected to as depending on a rejected base claim. Applicants have amended claims 12-15 to recite the correct parent claim. Claim 16 has been amended for to more distinctly claim the invention. Applicants submit that the pending claims are allowable over the cited prior art.

The rejected claims were rejected over Tada (U.S. App. No. 4,815,324) alone and/or in combination with Denner (U.S.App. No. 5,911,162). Tada is directed to a Karman vortex flowmeter. The output of the Karman vortex flowmeter is a phase modulated output signal, which is demodulated using a phase locked loop and a low-pass filter. Tada describes using a pressure sensor to generate a compensating signal for the output of the low-pass filter, to subtract out the pressure-dependent component of the output. Only the AC component of the pressure sensor output is amplified, and it is amplified to have the same amplitude as the pressure-dependent component of the output of the low pass filter. The entire AC signal is thus amplified according to the same function, namely $n=V1/Vp$, regardless of whether the level of the signal is small or large. The pending claims are not believed to be anticipated or obvious over Tada, alone or in combination with Denner.

Claim 1 recites "the second output signal being generated according to a first function of the first output signal when the first output signal is less than a first value" and "the second output signal being generated according to a second function of the first output signal when the first output signal is greater than a second value." The first output signal is shaped using a first function for small values and a second function for large values. The two functions are different.

Moreover, the first function and the second function are applied to all frequencies of the first output signal, including both an AC component and a DC component. Claim 1 is not anticipated by Tada because these features are not disclosed in Tada. In fact, Tada has a completely different objective so there is no suggestion to modify the teachings of Tada to shape the signal as set forth in claim 1. Accordingly, Claim 1 is believed to be allowable over the cited prior art. Also, claims 2-9 are allowable as depending from an allowable base claim, without rewriting claims 4-6 and 8 in independent form.

Claim 10 recites “generating the output signal according to a first function of a sensed pressure when the sensed pressure is less than a first value and generating the output signal according to a second function of the sensed pressure when the sensed pressure is greater than a second value.” As discussed above with respect to claim 1, unlike in Tada, the two functions are different, and the two functions are applied to all frequencies of the first output signal. Accordingly, Claim 10 is believed to be allowable over the cited prior art. Claims 12-15 are allowable as depending from an allowable base claim.

Claim 16 recites “the first output signal being substantially linear” and “a shaping electrical circuit producing a shaped output signal that is a first function of the first output signal when the first output signal is below a certain value, and a second function of the first output signal when the first output signal is above a certain value, the first function being different from the second function.” Different functions are applied to the first output signal depending on its magnitude. Also, these functions are applied to both the AC and DC components of the signals. Thus, claim 16, as well as dependent claims 17-20, are believed to be allowable over Tada, without rewriting claims 18-20 in independent form.

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Amdt. dated Feb. 18, 2004
Reply to Office Action of October 31, 2003

As all of the pending claims are believed to be allowable, Applicants respectfully request that the Office issue a Notice of Allowance. The Examiner is invited to telephone the Applicants' attorney to expedite resolution of any remaining issues. Please charge any additional fees due or credit any overpayment to deposit account number 08-0219.

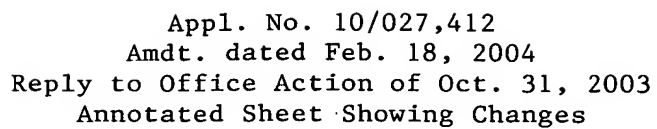
Dated: Feb. 18, 2004

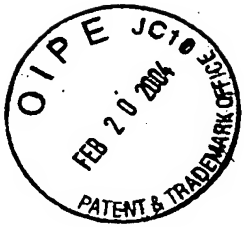
Respectfully submitted,



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Annotated Sheet Showing Changes

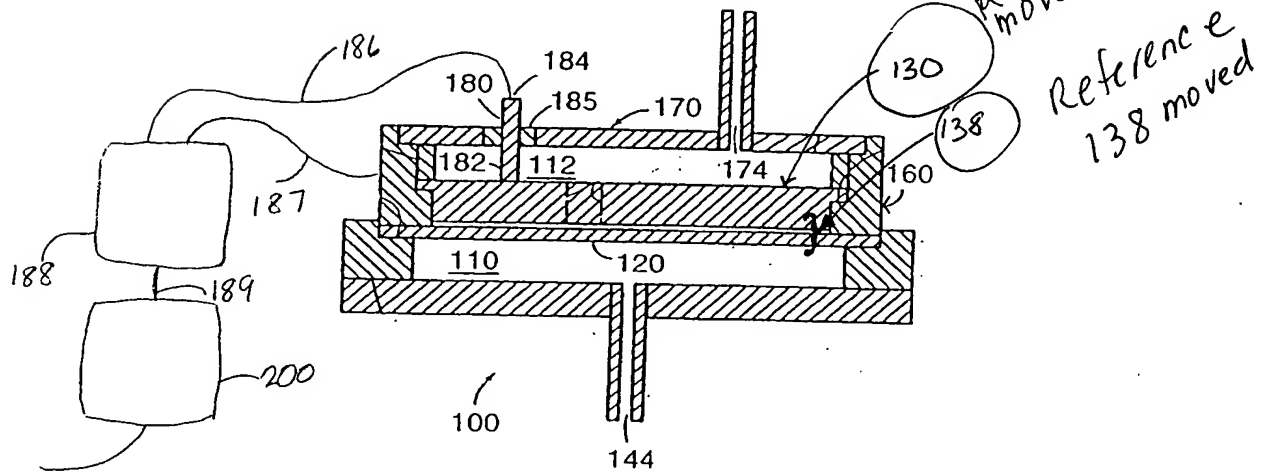


FIG. 3